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Electro-Optical Rendezvous And Docking Sensors

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Abstract: Electro-optical sensors provide unique and critical functionality for space missions requiring rendezvous, docking, and berthing. McDonnell Douglas is developing a complete rendezvous and docking system for both manned and unmanned missions. This paper examines our sensor development and the systems and missions which benefit from rendezvous and docking sensors. Simulation results quantifying system performance improvements in key areas are given, with associated sensor performance requirements.

A brief review of NASA-funded development activities and the current performance of electro-optical sensors for space applications is given. We will also describe current activities at McDonnell Douglas for a fully functional demonstration to address specific NASA mission needs.